

Department of Mathematics
MATH 1700 Calculus 2, September - December 2008

INSTRUCTORS:

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TEXT: James Stewart, Early Transcendentals Single Variable Calculus 6th Edition, Brooks/ Cole
(5th edition is also acceptable)
You will need to own this. A solution manual is also for sale; it is optional.

EVALUATION:

Midterm	30%
Thursday, October 23, 5:30pm to 6:30 pm (tentative), location TBA	
5 Tutorial Tests (2% each)	10%
Final Examination	60%

LECTURES AND TUTORIALS:

You will have either three 50 minute, or two 75 minute, lectures per week (depending on your lecture section). In addition you will have one 50 minute tutorial per week. You must attend a tutorial section that is associated with your lecture section. The tutorials will be staffed by senior students (TAs).

VOLUNTARY WITHDRAWAL:

Wednesday November 12, 2008 is the last date for voluntary withdrawal without academic penalty.

The Department of Mathematics, the Faculty of Science and the University of Manitoba regard acts of academic dishonesty in quizzes, tests, examinations or assignments as serious offenses and may assess a variety of penalties depending on the nature of the offense.

Acts of academic dishonesty include bringing unauthorized materials into a test or exam, copying from another student, plagiarism and examination personation. Students are advised to read section 7 (Academic Integrity) and section 4.2.8 (Examinations: Personations) in the "General Academic Regulations and Requirements" of the current Undergraduate Calendar. ***Note, in particular that cell phones and pagers are explicitly listed as unauthorized materials, and hence may not be present during tests or examinations.***

Penalties for violation include being assigned a grade of zero on a test or assignment, being assigned a grade of "F" in a course, compulsory withdrawal from a course or program, suspension from a course/program/faculty or even expulsion from the University. For specific details about the nature of penalties that may be assessed upon conviction of an act of academic dishonesty, students are referred to University Policy 1202 (*Student Discipline Bylaw*) and to the Department of Mathematics policy concerning minimum penalties for acts of academic dishonesty.

The *Student Discipline Bylaw* is printed in its entirety in the Student Guide, and is also available on-line or through the Office of the University Secretary. Minimum penalties assessed by the Department of Mathematics for acts of academic dishonesty are available on the Department of Mathematics web-page.

All Faculty members (and their teaching assistants) have been instructed to be vigilant and report incidents of academic dishonesty to the Head of the Department.

MATH 1700 Calculus 2
September - December 2008 Tentative Syllabus

Section of Text	Pages of Text	Topic	Suggested Homework (odd numbers unless stated otherwise)	
	6th edition		Page	
4.4	298-307	L'Hôpital's rule	304	1-21, 25-55, 57, 59, 61
10.1	621-629	Curves defined by Parametric equations	626	1-15, 19, 21
10.2 (partial)	630-632	Parametric equations: tangents	636	1-7, 11-17, 29
10.3	639-649	Polar Coordinates	647	1-27, 29-42 (all), 57-65, 69
5.1 & 5.2	354-379	The Definite Integral	364	3, 4, 5
			376	1-5, 17-21, 33, 43, 45, 70, 70
5.3	379-390	The Fundamental Theorem of Calculus	387	3-35, 41, 53-58 (all), 63, 65
5.4	391-399	Indefinite Integrals	397	1, 4, 5-11, 15-17, 21-37, 43-61
5.5	400-408	The Substitution Rule	406	1-39, 43, 51-67, 81
6.1	414-421	Areas between Curves	420	1-23, 45, 49
10.2 (part)	632-633	Area for Parametric Curves	637	31-35, 36(a)
10.4	650-654	Area in Polar Coordinates	653	1-7, 17-27
6.2	422-431	Volumes (general; discs and washers)	430	1-35, 57-63 (all)
6.3	433-437	Volumes (cylindrical shells)	436	3-25, 43, 45
1.6 (partial)	67-70	The Inverse Trigonometric Functions and their Derivatives	70	59-68 (all)
3.5 (partial)	211-213		214	45-51 (all), 55, 56 (no checking)
7.1	452-459	Integration by Parts	457	1-35, 58
7.2	460-466	Trigonometric Integrals	465	1-47, 63
7.3	467-473	Trigonometric Substitution	472	1-29, 38 (pg 388), 25 (pg 420)
7.4	473-481	Partial Fractions/ Rational Functions	481	1-29, 35, 39, 47, 55, 63
7.8	508-517	Improper Integrals	515	1-33, 37, 41, 49-55 (all), 57, 63
8.1	524-531	Arc Length	530	1, 5-17, 33
10.2 (partial)	633-635	Arc Length of parametric curves	636	37-44 (all), 53
10.4* (partial)	652-653	Arc Length (polar)	684	45-48 (all)
8.2	532-538	Surface Area	537	1-7, 11-15, 25, 26
10.2* (partial)	635-636	Surface Area and Parametric Curves	667	57-61

Note: Similar syllabus for Edition 5 will be posted online.